

1        ABSTRACT OF THE DISCLOSURE UNDER 37 C.F.R. §1.72(b)

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3        A method for controlling electronics across an RF barrier is disclosed. The  
4        method comprises a serial data control method that requires a limited number  
5        of signals passing through an RF barrier and does not require a free running  
6        clock. This method uses a processor with an associated serial data control  
7        bus that is located external to the RF chamber. An address dependent form  
8        of the serial bus passes through an interface to the RF cavity. The processor  
9        uses the serial bus to control electronics inside the RF cavity. The control  
10       method uses a minimum number of signals passing through the interface to  
11       the RF cavity, thereby preserving the RF isolation of the RF cavity from the  
12       external environment.